

April 4, 2008

Mr. Ryan Pletka
Black & Veatch Corporation
2999 Oak Rd, Suite 490
Walnut Creek, CA 94597

Subject: SCE's Comments to the RETI Phase 1A Draft Report

Dear Ryan:

SCE appreciates the opportunity to comment on the March 14, 2008 RETI Phase 1A Draft Report. These comments are provided in the following paragraphs.

1. The cost ranges associated with many of the renewable technologies are not representative of the bids that SCE has received. In particular, some are significantly higher than what we have observed (solar). Further, in some cases -- onshore wind, for example -- the ranges are so wide as to render them virtually meaningless.
2. Black & Veatch ("B&V") has not included any integration costs for wind or solar in its analysis. Significant work has been performed around the country that could serve as a starting point for estimating integration costs. For example, the following table was presented by NREL at the November 5, 2007 Western Interstate Energy Board (WIEB) meeting, and could be used as a basis for integration costs in this analysis:

**Comparison of Cost-Based
U.S. Operational Impact Studies**

Date	Study	Wind Capacity Penetration (%)	Regulation Cost (\$/MWh)	Load Following Cost (\$/MWh)	Unit Commitment Cost (\$/MWh)	Gas Supply Cost (\$/MWh)	Tot Oper. Cost Impact (\$/MWh)
May '03	Xcel-UWIG	3.5	0	0.41	1.44	na	1.85
Sep '04	Xcel-MNDOC	15	0.23	na	4.37	na	4.60
June '06	CA RPS	4	0.45*	trace	na	na	0.45
Feb '07	GE/Pier/CAIAP	20	0-0.69	trace	na***	na	0-0.69***
June '03	We Energies	4	1.12	0.09	0.69	na	1.90
June '03	We Energies	29	1.02	0.15	1.75	na	2.92
2005	PacificCorp	20	0	1.6	3.0	na	4.60
April '06	Xcel-PSCo	10	0.20	na	2.26	1.26	3.72
April '06	Xcel-PSCo	15	0.20	na	3.32	1.45	4.97
Dec '06	MN 20%	31**					4.41**
Jul '07	APS	14.8	0.37	2.65	1.06	na	4.08

* 3-year average; total is non-market cost

** highest integration cost of 3 years; 30.7% capacity penetration corresponding to 25% energy penetration;

24.7% capacity penetration at 20% energy penetration

*** found \$4.37/MWh reduction in UC cost when wind forecasting is used in UC decision

Source: http://www.nrel.gov/wind/systemsintegration/pdfs/lew_regional_studies.pdf

While the debate is still on-going regarding the “right” value to use for integration costs, the values depicted in the table above should certainly bracket the likely range. Whatever value is used must consider the specifics of the locale in question, such as the intermittent penetration level, the intermittent generation production characteristics, and the cost of operating reserves.

3. B&V, as well as some of the members on the Stakeholder Steering Committee, seems to prefer making the CREZs larger in MW terms because of perceived economies of scale. While there may be some merit to this approach in theory, as the CREZ expands geographically, the ability to develop a definite method of service transmission plan is diminished correspondingly and, as a result, defining projected transmission costs with precision becomes increasingly speculative.
4. The report lacks sufficient detail regarding potential renewable rich resource areas. Significantly greater detail is required in Phase 1A to achieve the desired outputs of Phase 1B. Specifically, the Draft Phase 1A report only states that solid biomass, solar PV and thermal, small hydro, onshore wind and geothermal in California will be evaluated in Phase 1B. In Phase 1A, RETI should have been able to specify the locations of these potential resources, not just the resource types. For example, the Phase 1A report could and should identify, for example, solar in eastern San Bernardino County and geothermal in Salton Sea, Mono Lake and western Nevada areas. The Phase 1A Draft Report effectively kicks the can down the road to Phase 1B, and will require a much more intensive effort in Phase 1B to produce the details necessary to make RETI useful.

Sincerely,



Gary Allen

cc: Black & Veatch (Tim Mason): MasonT@bv.com
Clare Laufenberg Gallardo: Claufenb@energy.state.ca.us
RETI Coordinating Committee Members
RETI Stakeholder Steering Committee Members